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# Memo to the Arctic Security Roundtable: The geopolitics of Arctic economic activities

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## Purpose and scope

The intersection between Arctic economic activity, resource development, and regional and global security concerns has been put into stark relief since Russia's full-scale reinvasion of Ukraine in 2022. A shadow fleet of ships now moves in and out of the Russian Arctic, carrying sanctioned petroleum in aging and inadequately insured or uninsured vessels across vulnerable Arctic maritime regions and environments. Russian oil and gas from the Arctic have found new customers in China and India, demonstrating the importance of the Arctic in broader geopolitical, economic, and energy security dynamics. This reality plays out against the ongoing dynamic of a China-Russia convergence in foreign policy, natural resources, and other development spheres relevant to the Russian North. There is clear evidence this cooperation also includes military activities, with Chinese and Russian naval and coast guard vessels, bombers, and other aircraft engaging in coordinated activity in the Bering Sea region off the coast of Alaska. All of these factors and driving factors play out in a region being transformed by the impacts of global climate change.<sup>1</sup>

The nexus of resources, security and environment are reshaping the political landscape of the region—and will have profound effects on the Arctic's future. Many of these dynamics manifest at the national or domestic level and are debated and legislated within Arctic states. Outputs of international and Arctic regional cooperative efforts—from international legal frameworks to a suite of highly relevant Arctic regional agreements on search and rescue, fisheries, oil spill preparedness and response, and coast guard cooperation—all seek to address these economically driven dynamics. However, as elsewhere in a world in which multilateralism is under pressure and uncertainty about global commitment to the rule of law, compliance and implementation of these agreements are essential components of a peaceful, stable, and prosperous Arctic.

This brief memo is intended to support discussions at the MSC Arctic Security Roundtable 2025, which has a particular focus on economic drivers and how they impact security and governance in the region. The memo directs attention to key vectors, both long-term and more recent, that are at the intersection of economy, security and environment across national borders in the Arctic.

## New developments in long-term trends

The impacts of *climate change* on the Arctic shape the prospects for old and new natural resource-based economic activities in a region traditionally largely dependent on natural resource development. Climate impacts include northward or changing patterns and locations of fish stocks to threatened critical infrastructure due to underlying permafrost thaw. At sea, the types of activity (military, as well as shipping, tourism, fisheries) possible in and around the Arctic Ocean are also changing rapidly. Recent research has confirmed that the Arctic Ocean is likely to see its first completely ice-free summer day before 2030, with winter ice cover being reduced in both extent and thickness.

Arctic states have watched with concern as *Russia and China's 'unlimited friendship'* has taken on Arctic aspects, including enhanced cooperation in the security sphere, such as joint naval and air operations in the Bering Sea region. China has been Russia's largest trading partner for 13 years, and the bilateral trade reached a record high USD \$244 billion in 2024<sup>2</sup>. However, bilateral trade only grew 2.9% in 2024, largely due to payment disruptions following US sanctions on banks dealing with Russia. Foreign direct

1 Heuzé, Celine & Jahn, Alexandra, 2024, "The first ice-free day in the Arctic Ocean could occur before 2030", *Nat Commun* 15, 10101, <https://doi.org/10.1038/s41467-024-54508-3>

2 Reuters: China-Russia 2024 trade value hits record high - Chinese customs <https://www.reuters.com/markets/china-russia-2024-trade-value-hits-record-high-chinese-customs-2025-01-13/robab>

investment (FDI) from China into Russia's Arctic remains comparatively low<sup>3</sup> when considered in the context of the broader economic relations between the two countries, much of which is realized through the involvement of Chinese companies in key Russian sectors (particularly energy). China is now the main consumer of Russia's energy exports overall (see Figure 2). Chinese actors provided 80% of the financing to Yamal LNG and Arctic LNG 2 projects. Chinese companies conduct a significant amount of business connected to these projects, executing, for example, \$8.5 billion USD in related shipping contracts<sup>4</sup>.

Changing climate conditions and changed destinations for Russia's Arctic oil and gas has increased traffic levels in *Arctic shipping*. It is important to note that, despite the rapid speed of climate change in the Arctic, darkness, cold temperatures, changing and unpredictable ice conditions, and limited SAR capacity will remain challenges in the foreseeable future. Nonetheless, 2024 set a record for transit cargo through the Northern Sea Route, with a total of 97 voyages<sup>5</sup>. Total tonnage transported via the NSR was 38 million tonnes (Mt) in 2024, compared to 35 in 2023. The cargo volume has increased ten-fold over the last decade, from 3.7 Mt in 2014.<sup>6</sup> Importantly though, almost all this traffic is between Russia and China, and it is primarily comprised of crude oil trade. President Putin has stated very high ambitions for the NSR, setting a target of 80 Mt by 2024. From that perspective the traffic is far below Russia's stated ambition. Russian LNG exports shipped from the Arctic continue to reach the global market, despite sanctions. Europe imported record high 16.65 Mt Russian LNG in 2024.<sup>7</sup>



Figure 1: Transit voyages through the NSR in 2010 – 2024. Source: Center for High North Logistics, <https://chnl.no/news/main-results-of-nsr-transit-navigation-in-2024/>

3 See <https://www.cna.org/centers-and-divisions/cna/sppp/strategy-and-policy-analysis/arctic-fdi> for an interactive map of FDI in the Arctic as of 2022. Also note that Arctic coastal states have FDI screening mechanisms in place (Overfield, C. A. Miller, E. Douglas, K. Stricklin and M.E. Connell, 2022, *Foreign Direct Investment Screening in the Arctic*, Center for Naval Analyses, CNA), with Greenland initiating legislation relating to FDI in February 2024 and actively developing its mining legislation. See Sørensen, Ditte Brasso and Cecilia Yearsley, 2024, *The Green Transition: Are Greenland's Critical Raw Material deposits the key to the EU's net-zero future?* <https://thinkuropa.dk/node/3880/pdf-export>

4 Humpert, Malte, 2023, "Putin and Xi Discuss Further Deepening Arctic Partnership". *High North News*. <https://www.highnorthnews.com/en/putin-and-xi-discuss-further-deepening-arctic-partnership>

5 Centre for High North Logistics (CHNL): Main Results of NSR Transit Navigation in 2024, <https://chnl.no/news/main-results-of-nsr-transit-navigation-in-2024/>

6 Humpert, Malte, 2025, "Russia Sets New Arctic Shipping Record, Transports 38Mt in 2024 via Northern Sea Route", *gCaptain*, Jan 2 2025, <https://gcaptain.com/russia-sets-new-arctic-shipping-record-transport-38mt-in-2024-via-northern-sea-route/>

7 Humpert, Malte, 2025, "EU Imports More Russian LNG in 2024 Than Ever Before, Mostly From Arctic", *High North News*, Jan 6 2025, <https://www.highnorthnews.com/en/eu-imports-more-russian-lng-2024-ever-mostly-arctic>

## Emerging challenges

The staggering growth of the ‘dark fleet’<sup>8</sup> (ships operating solely in sanctioned trades, sometimes called shadow, grey, or parallel fleet), for Russian oil and gas exports highlights the intersection between economic and governance challenges in the Arctic as well as globally. According to some estimates, this fleet grew by 70% in 2024, reaching 200-800 ships, depending on the definition. The fleet transports Russian oil – being sold above the price cap enacted by the sanctions’ regime after the country’s reinvasion of Ukraine – to market with India and China as the largest volume consumers.<sup>9</sup> As sanctions are tightened also on LNG, a rise of ‘dark’ LNG vessels has also been witnessed.<sup>10</sup> An increasing number of the ‘dark fleet’ and their operators have come under US sanctions, but this is a continuous game of ‘catch-up’ as ships are sold, re-flagged and re-named. These vessels and operations weaken adherence to global shipping frameworks and shared practices of shipping governance in the Arctic, by for instance switching off or even spoofing the onboard automatic identification system (AIS)<sup>11</sup>, when bringing sanctioned oil and LNG from Russia via Arctic waterways to global customers. This traffic also represents environmental risks as the ships are old, not properly insured, and not necessarily adhering to IMO safety standards.

Russian targeting of *critical undersea infrastructure* (CUI), particularly electricity and data cables, but also allegedly gas pipelines, is of growing concern. With the several recent alleged sabotage incidents of cables in the Baltic Sea, as well as the disruption of the Svalbard data cable in 2022, more such incidents can be expected. Arctic data cables are especially subject to risks of disruption or sabotage as redundancies that provide resiliency elsewhere are generally lacking in the region.<sup>12</sup> Furthermore, with heightened attention to both Arctic regional and quicker global connectivity, we are likely to see the Arctic seabed used more extensively in years to come. The incidents of disruption of critical undersea infrastructure underscore the need to strengthen law enforcement mechanisms within the national 200nm Exclusive Economic Zones (EEZ). Today, states have full sovereignty within the 12nm Territorial Sea, whereas the degree of national control and legal basis for enforcement is more complex within the EEZ.<sup>13</sup>

*Critical mineral resources* in the Arctic have attracted attention for many years, even as costs of extraction in the Arctic remain high as compared to other locations.<sup>14</sup> Access to venture capital, permitting, domestic politics, market demand, workforce limitations, energy sources, and significant processing and supply chain issues all pose challenges to the development of critical minerals throughout the Arctic region. However, it is important to note that political change can quickly

8 Lloyd’s List defines a tanker as part of the dark fleet if it is aged 15 years or over, anonymously owned and/or has a corporate structure designed to obfuscate beneficial ownership discovery, solely deployed in sanctioned oil trades, and engaged in one or more of the deceptive shipping practices outlined in US State Department guidance issued in May 2020.

9 Caprile, Anna and Gabija Leclerc, 2024, *Russia’s ‘shadow fleet’: Bringing the threat to light*, European Parliamentary Research Service (EPRS), Nov 2024, [https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/766242/EPRS\\_BRI\(2024\)766242\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/766242/EPRS_BRI(2024)766242_EN.pdf)

10 Katinas, 2024, *The rise of ‘shadow’ LNG vessels: A new chapter in Russia’s sanctions evasion strategy*, CREA, Aug 23 2024, <https://energyandcleanair.org/the-rise-of-shadow-lng-vessels-a-new-chapter-in-russias-sanctions-evasion-strategy/>

11 Lloyd’s List, 2024, *Russia’s once grand Arctic LNG project limps towards a dark fleet start-up*, Aug 5 2024, <https://www.lloydslist.com/LL1150127/Russia%e2%80%99s-once-grand-Arctic-LNG-project-limps-towards-a-dark-fleet-start-up>

12 Mathieu Boulègue, 2024, *The Impact of the War Against Ukraine on Russia’s Arctic Posture: Hard Power on Vulnerable Ice*, Wilson Center, June 2024, p. 25, <https://www.wilsoncenter.org/publication/arctic-seabed-warfare-against-data-cables-risks-and-impact-us-critical-undersea>

13 Alexander Lott, 2024, *Christmas Day Cable Cuts in the Baltic Sea*. EJIL Talk!: Blog of the European Journal of International Law, <https://www.ejiltalk.org/christmas-day-cable-cuts-in-the-baltic-sea/>

14 Watson, Brett, Steven Masterman, & Erin Whitney, 2023, *Critical Minerals in the Arctic: Forging the Path Forward*, Wilson Center Critical Minerals, July 2023, *Critical Minerals in the Arctic - Forging the Path Forward.pdf*.

precipitate changed patterns of trade and resource demand (i.e. ‘friendshoring’ and ‘de-risking’ global trade in energy and technology),<sup>15</sup> as can electoral or regime change. The Arctic is home to mineral reserves of critical importance to current and new technologies, particularly in green energy. To give one key example, a 2023 European Commission study found that 25 of 34 critical raw materials were found in Greenland. A Strategic Partnership on Sustainable Raw Materials Value Chains between Greenland and EU was agreed upon the same year.<sup>16</sup> Similarly, 49 of the US’ 50 critical minerals (as defined by the USGS) are found in Alaska.<sup>17</sup>

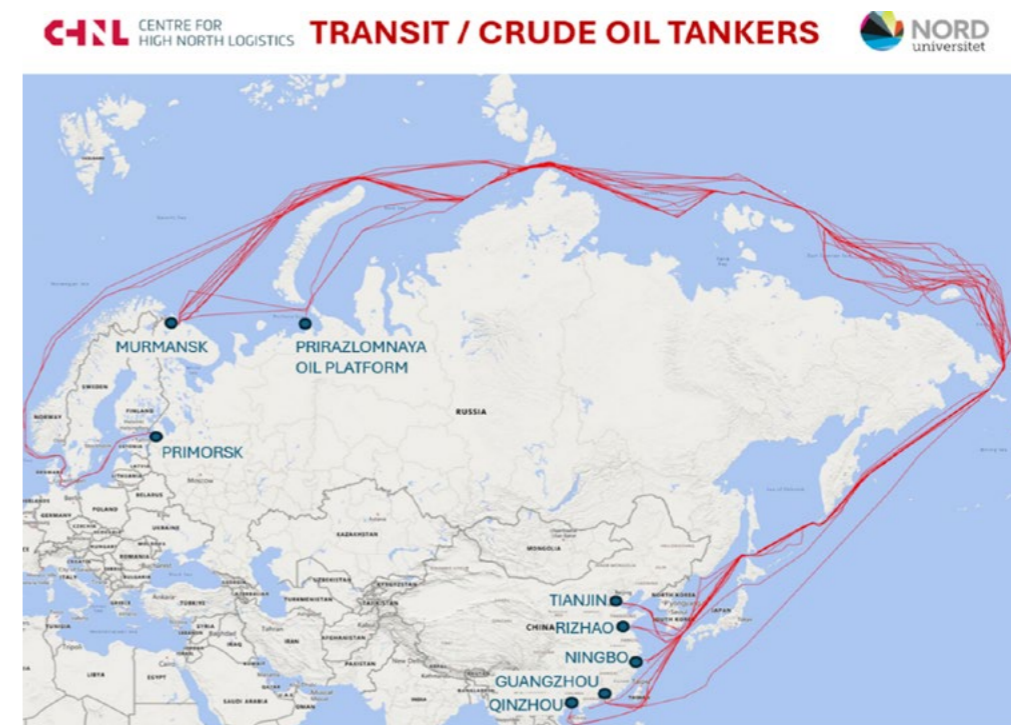


Figure 2: Transportation of crude oil via the NSR 2024. Source: Center for High North Logistics, <https://chnl.no/news/main-results-of-nsr-transit-navigation-in-2024/>

15 Schutte, Leonard, 2024, “Economics: Trade Off.” In *Lose-Lose? Munich Security Report 2024*, 79–87. Munich: Munich Security Conference. For a recent commentary on critical minerals in US-China trade relations, see Gracelin Bhaskaran and Meredith Schwartz, *China imposes its most stringent critical minerals export restrictions yet amidst escalating US-China trade war*, CSIS, Dec 4, 2024, <https://www.csis.org/analysis/china-imposes-its-most-stringent-critical-minerals-export-restrictions-yet-amidst>

16 Government of Greenland, *EU and Greenland sign strategic partnership on sustainable raw materials value chains*, <https://govmin.gl/2023/11/eu-and-greenland-sign-strategic-partnership-on-sustainable-raw-materials-value-chains/>

17 Office of Fossil Energy and Carbon Management, US Department of Energy, 2023, <https://www.energy.gov/fecm/articles/critical-minerals-workshop>

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